Sheet Metal Tray

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Part I: General Overview of Business

- Doerfer Companies-TDS Automation
- Global supplier of process automation
- Locations throughout North America and Singapore
- Markets served: aerospace, defense, heavy equipment, automotive, electronics, and healthcare.

Part II: Job Specifics

- Surface development
- Sheet metal fabrication
- This department designs and makes tooling required to construct products from sheet metal.
- Use paper layout to determine if design is functional.

Part III: Introduce the Problem

- You will be making a full scale model of a sheet metal product.
- You need to determine cuts and bends to create tray.
- You will also need to determine the operations in the correct order.
- The final construction will require to pass quality control i.e. size and safe edges.

Part IV: Background

What content knowledge does student need to solve the problem?

- Student will need to have an understanding of how to read technical drawings and follow written instructions.
- Project will require basic understanding of metal working tools and their use.

Part V: Business Solution

- Layout and cut sheet metal stock for tray.
- Process (punch, drill, scratch, snip, and bend).
- Create a final project that meets or exceeds quality expectations.

Part VI: Student Solutions

- Research other surface development problems such as heating, ventilation, and air-conditioning.
- Develop their own story board for presentation of their solution.